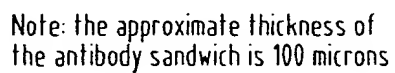
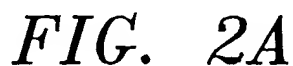


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Special Gel Coat

Chromogenic Ligand

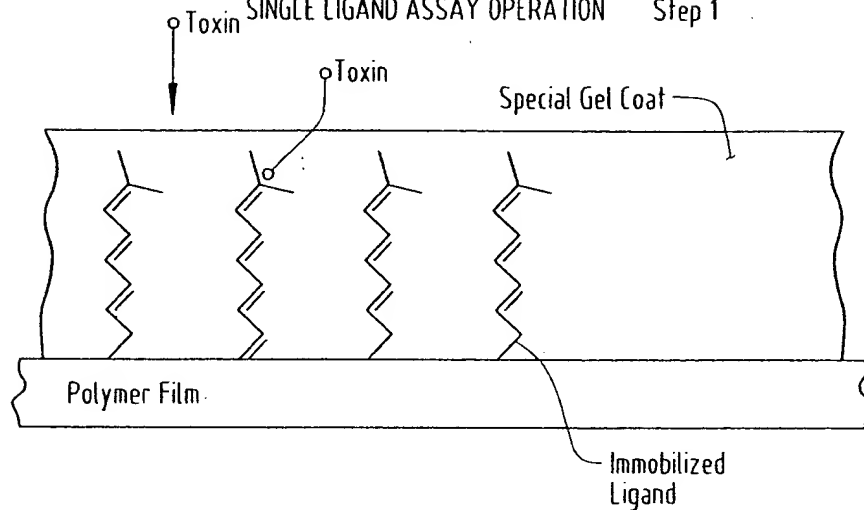
Polymer Film

A chromogenic ligand is immobilized on the polymer film in patterns of icons, and is coated with a porous gel which will allow the migration of toxins to the ligand.

FIG. 3

SINGLE LIGAND ASSAY OPERATION

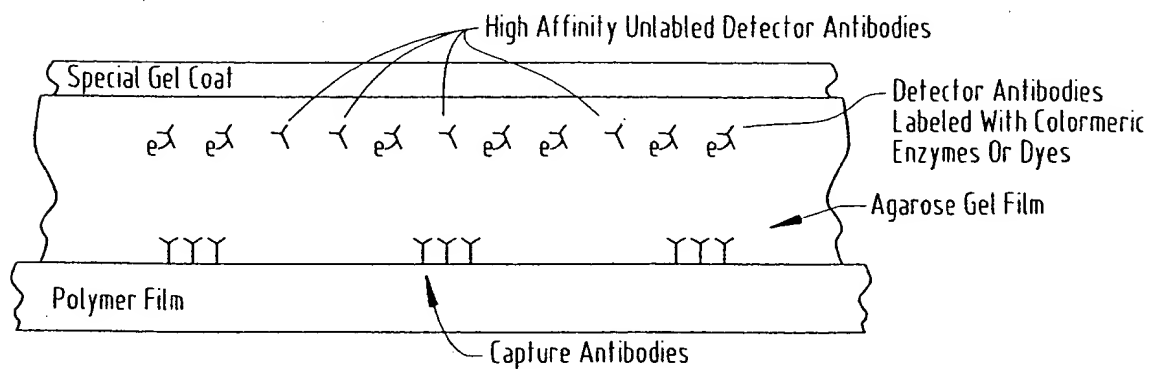
Step 1



When a toxin enters the special gel and binds to the ligand, it will cause a conformational change in the ligand which results in a color change. Distinct patterns will emerge in about 30 minutes and distinct dark color changes will appear in 72 hours.

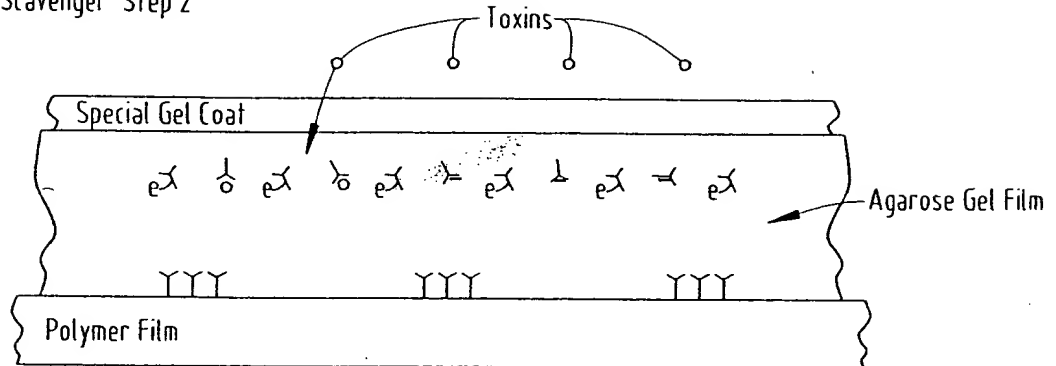
FIG. 4

TOXIN QUANTIFICATION BY SCAVANGER SYSTEM



Scavenger Step 2

FIG. 5

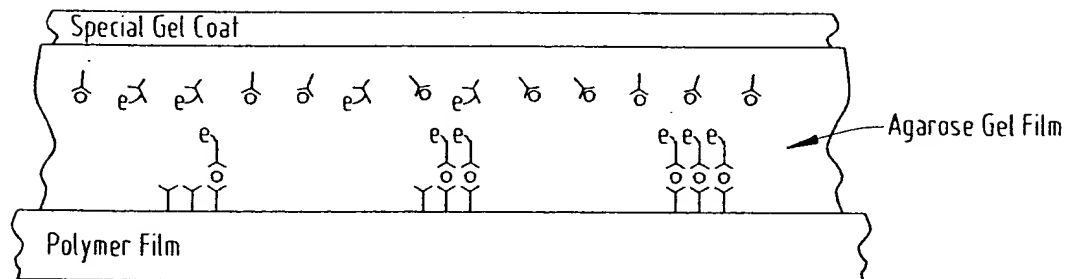


When toxins enter the sandwich, they will bind first with the unlabeled detector antibodies until all of these are bound.

FIG. 6

Scavenger Step 3

After all of the high affinity unlabeled detector antibodies are bound to the toxins, the detector antibodies labeled with a colormeric enzyme will begin to bind to the toxins. The labeled complex will then begin to bind to the capture antibodies, producing a visual cue.



after 30 minutes
distinct pattern

after 72 hours
dark distinct pattern

FIG. 7

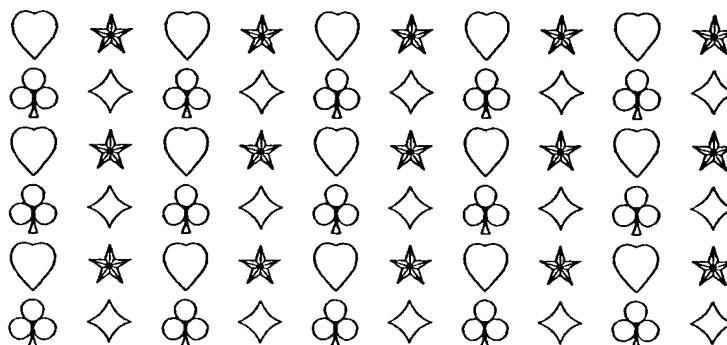


FIG. 7A

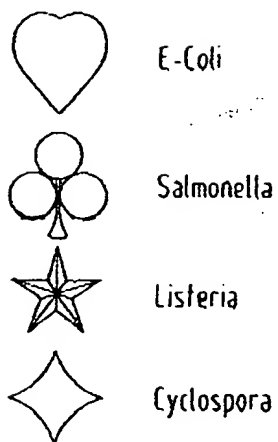


FIG. 8

Checkerboard Dot-Spot Application of RaMBP on a Polyvinylchloride Surface and Detection by GaR^{HRP}

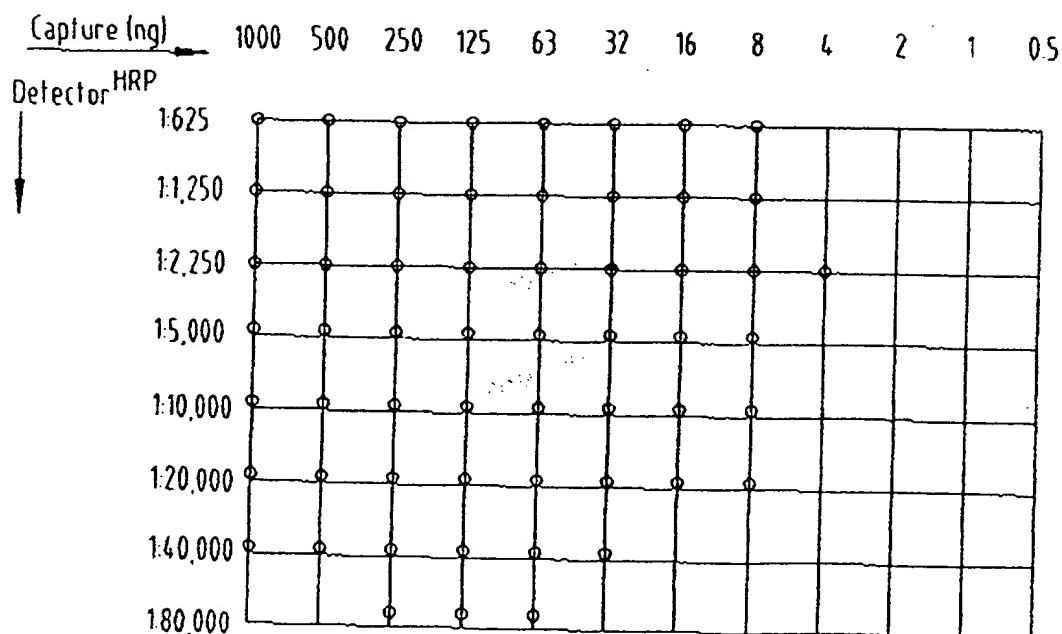


FIG. 9

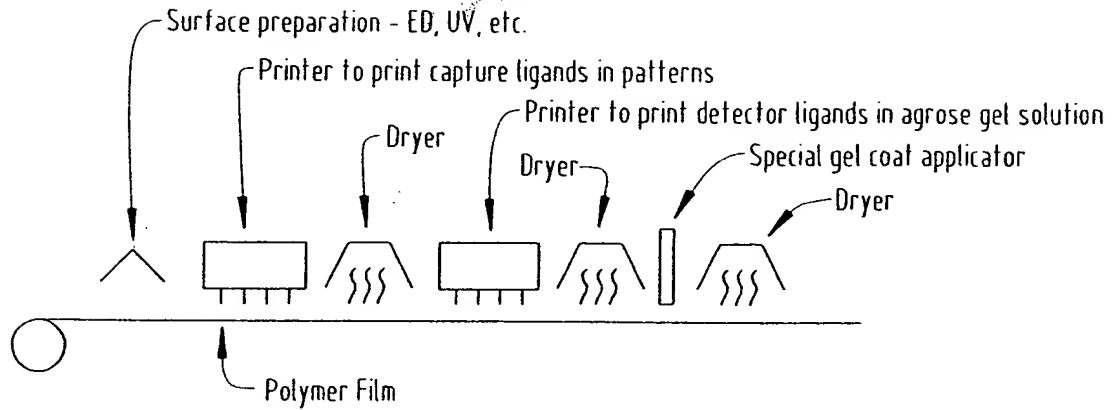
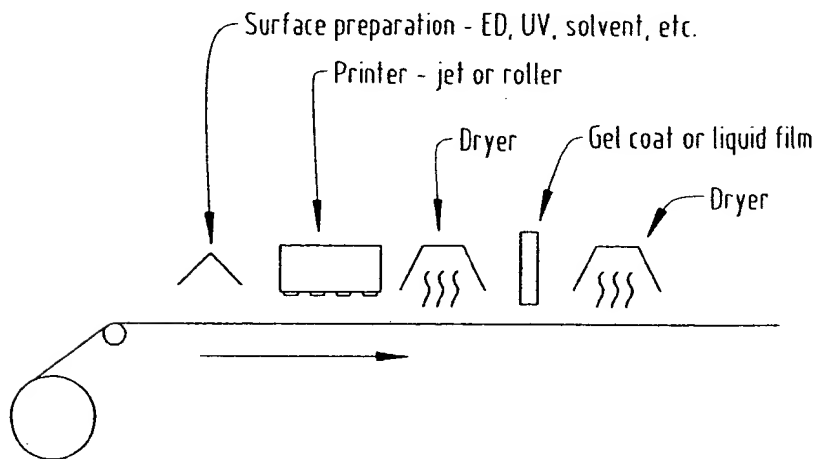


FIG. 10

GENERAL LAYOUT APPLICATION MACHINERY



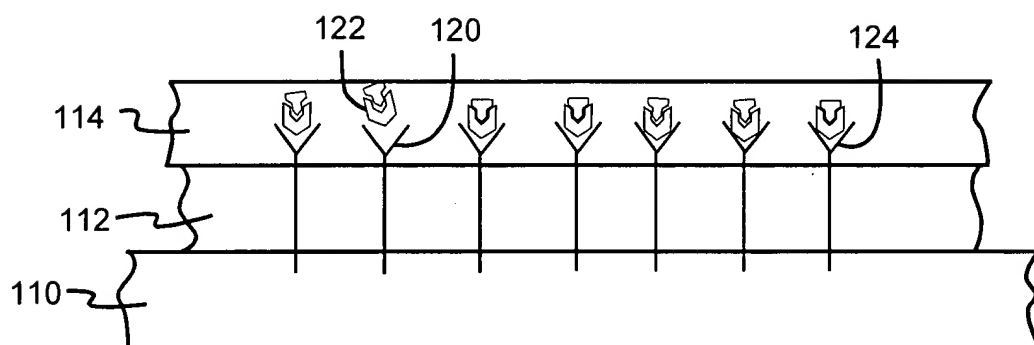


FIG. 11

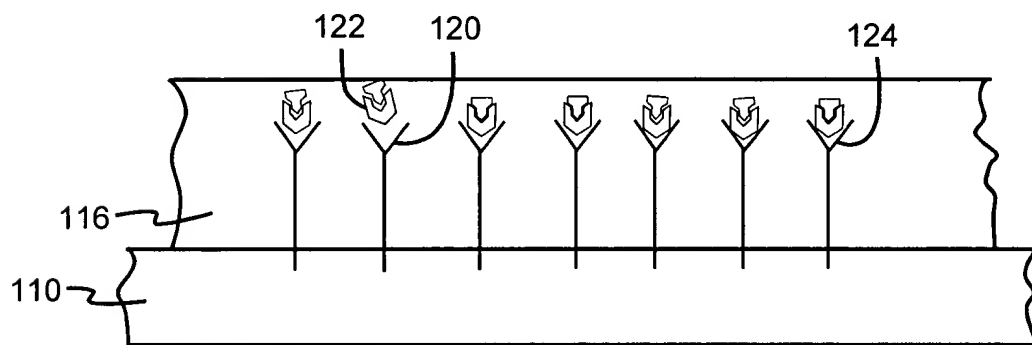


FIG. 12

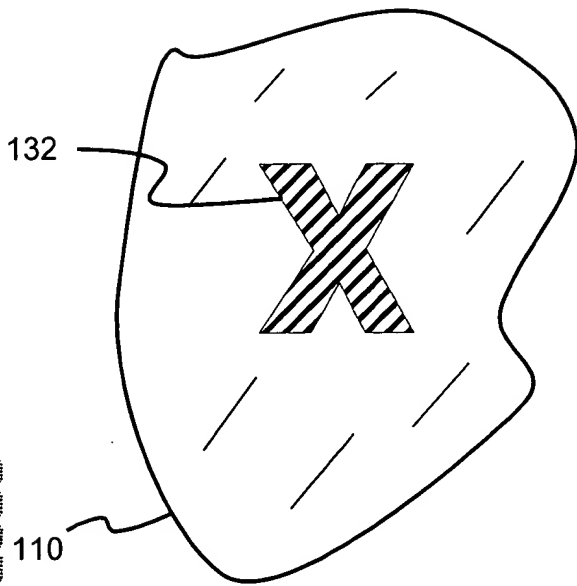


FIG. 13A

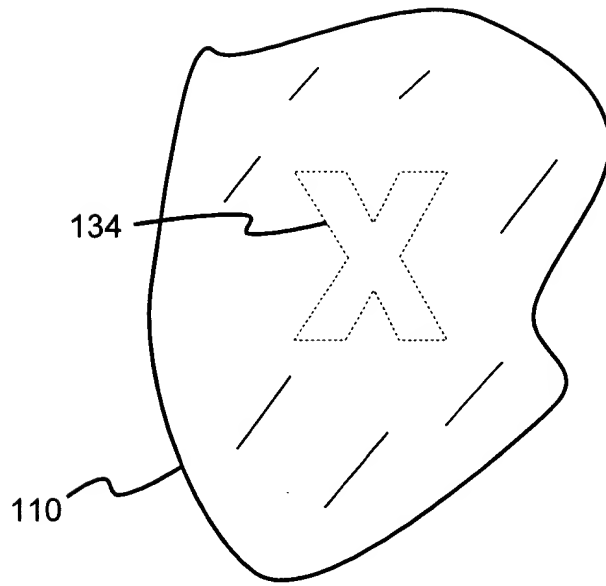


FIG. 13B

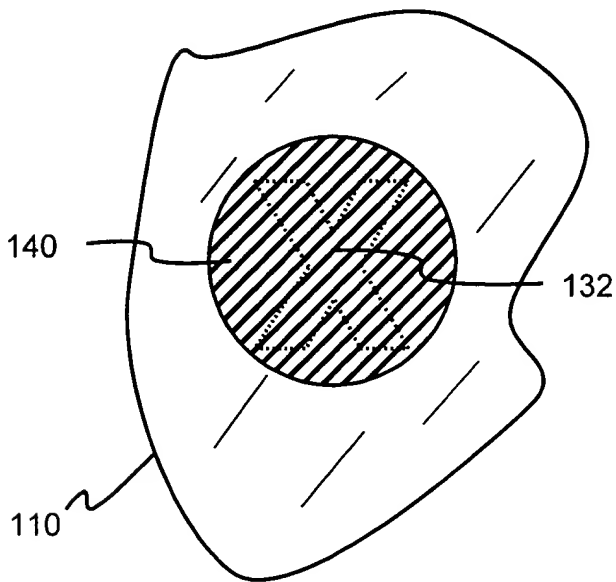


FIG. 14A

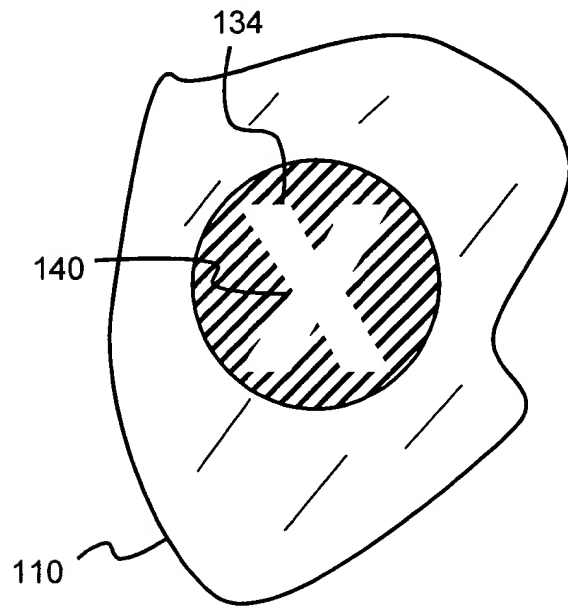


FIG. 14B

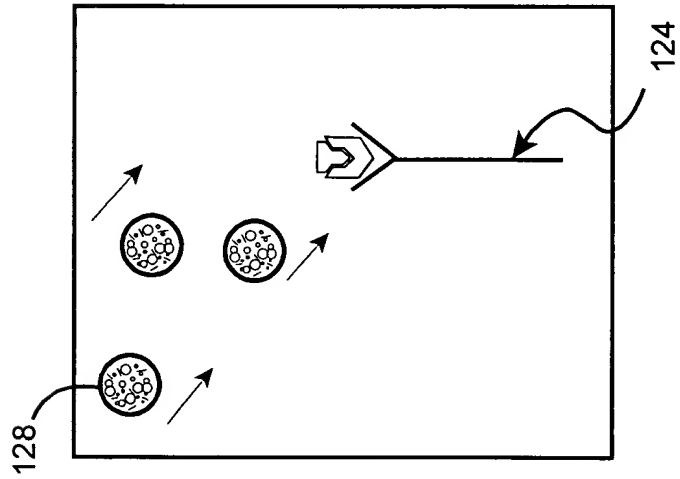


FIG. 15A

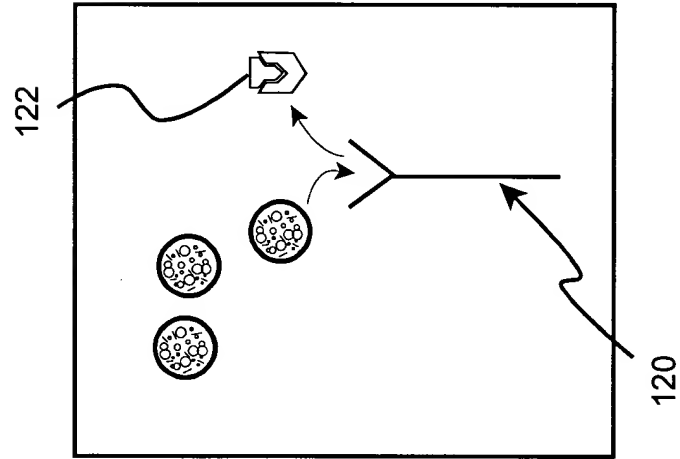


FIG. 15B

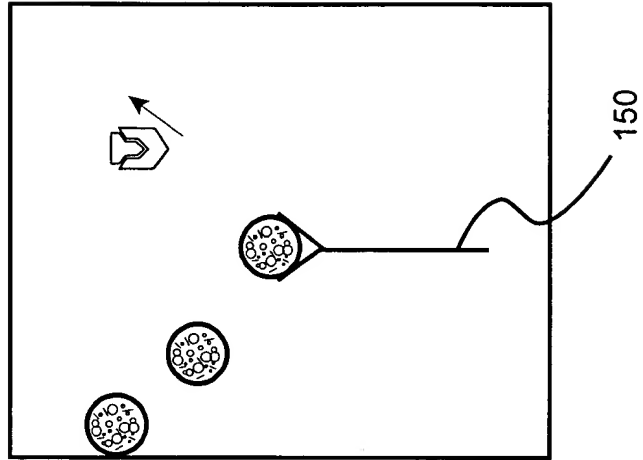


FIG. 15C